



FILES
of Quality


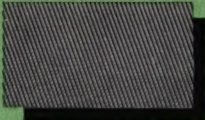
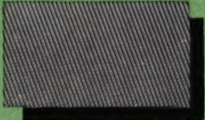





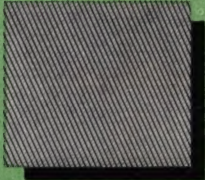
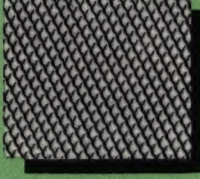



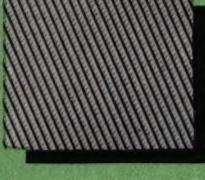
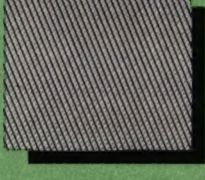
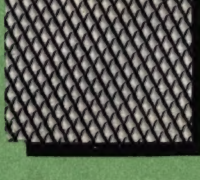
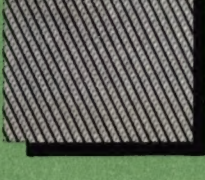
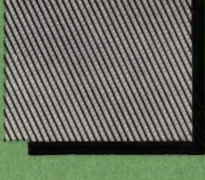
CATALOG
No. 47

DELTA FILES



FILE *Cuts*

ACTUAL TOOTH COARSENESS FLAT AND HAND (Double Cut) FILES

	BASTARD	SECOND CUT	SMOOTH
6"			
8"			
10"			
12"			
14"			
16"			

Degrees of coarseness in files are described by the terms bastard, second cut, and smooth. The actual coarseness, however, depends on the size of the file. Larger files have coarser teeth than the shorter sizes of the same cut.

The illustrations to the left show in actual size the comparative coarseness of a Flat or Hand (double cut) file in six lengths and the three cuts.

The succeeding pages show the approximate number of teeth per inch for all files listed. These are counted along the edges of the file and show in single cut files the actual number of teeth per inch, while in double cut files the reference is to the rows of teeth of the upcut.

The upcut is the last cut placed on a double cut file—therefore is deeper and more pronounced than the first cut, which is called the overcut.

DELTA FILES

PRICE LIST

Prices per Dozen

INDUSTRIAL FILES

	4"	6"	7"	8"	10"	12"	14"	16"	18"		6"	8"	10"	12"	14"	16"
FLAT										VELVO FINISHER						
Bastard	3.70	4.30	...	5.30	7.00	9.70	13.30	17.80	23.90	Milled Teeth	...	...	...	...	31.70	...
2nd Cut	4.30	4.80	...	6.10	8.10	11.00	15.30	20.10	...	Flexible	...	...	...	...	31.70	...
Smooth	4.70	5.30	...	6.60	8.70	12.10	16.70	22.30	...	Tanged	...	...	...	...	...	...
HAND										ZIPPER						
Bastard	...	4.30	...	5.40	7.50	10.70	15.00	20.10	...	Blade Only	...	...	...	...	60.00	...
2nd Cut	...	5.10	...	6.30	8.70	12.30	17.00	...	...	Handle only	...	...	...	...	48.00	...
Smooth	...	5.60	...	6.70	9.40	13.50	18.20	...	...	ALUMINUM						
HALF ROUND										BRASS						
Bastard	4.80	6.10	...	7.50	9.10	11.80	15.50	20.60	...	Flat	...	7.00	8.50	11.00	...	...
2nd Cut	5.60	6.70	...	8.30	10.10	13.00	17.00	22.50	...	Half Round	5.30	7.00	8.50	11.00	14.50	...
Smooth	6.10	7.10	...	8.90	10.70	13.90	18.30	24.20	...		10.50	12.00	13.50	16.00	20.00	...
SQUARE										LEAD FLOAT or BABBITT						
Bastard	3.80	4.60	...	5.50	7.40	10.20	13.90	18.70	25.10	Flat	...	...	...	...	...	...
2nd Cut	4.60	5.10	...	6.30	8.50	11.50	16.10	...	...	Half Round	...	6.30	8.60	11.80	...	...
Smooth	4.90	5.50	...	7.00	9.10	12.80	17.50	...	...		...	8.50	10.70	14.10	...	...
SQUARE BLUNT										FOUNDRY						
Bastard	...	...	...	7.40	10.20	13.90	18.70	...	...	Flat	...	...	...	...	...	...
ROUND										Half Round	...	5.30	7.00	9.70	13.30	...
Bastard	3.00	3.50	3.90	4.30	5.60	7.50	10.70	14.70	...		...	7.50	9.10	11.80	15.50	...
2nd Cut	3.50	4.00	...	4.90	6.40	8.60	12.20	...	...	LATHE						
Smooth	3.90	4.50	...	5.40	7.00	9.40	13.10	...	...	Long Angle	...	...	8.60	11.80	16.00	...
THREE SQUARE										HAND FINISHING						
Bastard	...	6.10	...	7.50	9.10	11.80	...	...	...	Smooth	...	...	...	16.20	21.70	...
2nd Cut	...	6.70	...	8.30	10.10	13.00	...	...	...	DOCTOR						
Smooth	...	7.10	...	8.90	10.70	13.90	...	...	...	...	...	...	...	...	21.70	...
WARDING										WOOD RASPS						
Bastard	4.00	4.90	...	6.40	8.70	...	...	...	...	Flat	...	...	...	...	...	...
2nd Cut	4.80	5.90	...	7.50	10.10	...	...	...	...	Bastard	...	9.40	12.80	17.50	23.20	30.80
Smooth	5.40	6.40	...	8.20	11.00	...	...	...	...	Smooth	...	12.80	17.50	23.20	30.80	40.90
PILLAR										Half Round	...	...	...	...	...	...
Bastard	...	4.30	...	5.40	7.50	10.70	...	...	...	Bastard	8.10	10.10	13.70	18.70	24.80	32.90
2nd Cut	...	5.10	...	6.30	8.70	...	...	...	...	Smooth	10.10	13.70	18.70	24.80	32.90	43.60
Smooth	...	5.60	...	6.70	9.40	...	...	...	...	Cabinet	...	...	...	...	...	...
KNIFE										2nd Cut	10.10	12.80	17.50	22.80	29.60	...
Bastard	5.40	6.90	...	8.50	10.10	...	...	...	...	Smooth	11.70	15.50	20.70	26.80	33.90	...
2nd Cut	6.10	7.50	...	9.10	11.50	...	...	...	...			
Smooth	6.40	7.90	...	9.50	12.30	...	...	...	...			

SAW FILES

	4"	4½"	5"	5½"	6"	7"	8"	9"	10"		4"	6"	7"	8"	10"	12"	14"	16"
TAPER										MILL								
...	...	...	...	...	3.40	4.30	5.40	...	8.10	Bastard	3.00	3.50	3.90	4.30	5.60	7.50	10.70	14.70
SLIM TAPER										2nd Cut	...	4.00	...	4.90	6.40	8.60	12.20	...
...	2.20	2.30	2.50	...	3.10	3.80	4.50	...	6.40	Smooth	...	4.50	...	5.40	7.00	9.40	13.10	...
EXTRA SLIM TAPER										MILL 1 R.E.								
...	2.20	2.30	2.50	2.90	3.10	3.80	4.50	...	...	Bastard	...	3.90	...	4.80	6.30	8.40	...	...
DOUBLE EXTRA SLIM										MILL 2 R.E.								
...	2.20	2.30	2.50	...	3.10	3.80	4.50	...	...	Bastard	...	4.40	...	5.40	7.00	...	...	...
SPECIAL HAND SAW										MILL BLUNT								
5½ x ¼"	...	...	...	2.90	...	...	...	...	...	Bastard	...	3.90	4.30	4.90	6.70	...	...	...
7 x ¼"	...	...	...	...	...	3.80	...	...	...	LANCE TOOTH								
8 x ⅝"	...	...	...	...	...	4.50	...	...	...	Bastard	...	3.90	4.30	4.90	6.70	...	...	...
BLUNT HANDSAW										CROSS CUT								
Slim	...	...	...	...	3.80	...	...	...	...	...	...	...	...	7.50	9.10	...	...	...
Ex. Slim	...	...	...	3.80	4.50	5.40	...	...	...	CANT SAW								
BLUNT BAND SAW										...	5.40	...	6.40	8.70	...	...	...	...
Regular	...	...	...	...	4.70	...	6.70	...	...	PIT SAW								
Slim	...	...	...	...	3.90	...	5.30	...	...	...	...	...	...	7.50	...	...	...	...
DOUBLE ENDER										...	...	...	...	...	...	...	...	...
...	...	...	...	...	3.50	3.50	3.90	4.40	4.90									

STANDARD PACKAGES—All Files up to and including 10 inches packed 1 dozen to box.

Sizes 12 inches and larger packed ½ dozen to box.

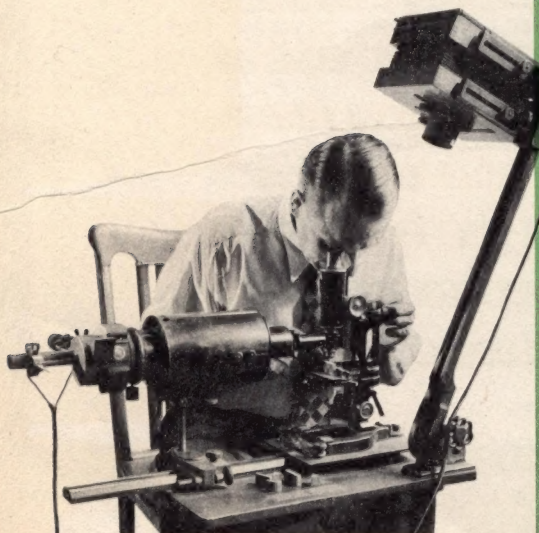
DELTA FILES



PRECISION

Delta Files are not made by mass methods. In every one of the thirty or more operations necessary to produce a Delta File, individual care is given. A modern plant, with the latest scientific devices and controls, gives the skilled Delta workmen every assistance and incentive to produce files of uniform high quality. No attempt is made to cut costs by quantity methods that would lower the quality.

This fidelity to standards does not permit us to make files of more than one grade. No Delta workman is expected to aim at quality one day and at quantity the next. It is not in human nature to avoid compromises when that is attempted. Delta workmen have only one standard—the best that will and skill can make.



Micro-photographic equipment for the examination of steel, also to determine and maintain the proper heat treatment of the files during manufacture.

DIMENSIONS AND APPROXIMATE NUMBER OF TEETH PER INCH

FLAT FILE

Length	4	6	8	10	12	14	16	18	Inches
Width....	$\frac{7}{16}$	$\frac{5}{8}$	$\frac{13}{16}$	1	$1\frac{3}{16}$	$1\frac{1}{2}$	$1\frac{13}{16}$	$1\frac{3}{4}$	"
Thickness..	$\frac{7}{32}$	$\frac{5}{32}$	$\frac{7}{32}$	$\frac{1}{4}$	$\frac{11}{64}$	$\frac{13}{64}$	$\frac{15}{64}$	$\frac{17}{64}$	"
Bastard....	43	32	25	22	18	17	15	14	} teeth per inch
2nd Cut...	54	43	35	30	27	24	22	..	
Smooth....	69	54	46	40	35	31	30	..	

HAND FILE

Length	6	8	10	12	14	16	Inches
Width....	$\frac{5}{8}$	$\frac{13}{16}$	1	$1\frac{3}{16}$	$1\frac{1}{2}$	$1\frac{13}{16}$	"
Thickness..	$\frac{7}{32}$	$\frac{5}{32}$	$\frac{1}{4}$	$\frac{11}{64}$	$\frac{13}{64}$	$\frac{15}{64}$	"
Bastard....	32	25	22	18	17	15	} teeth per inch
2nd Cut...	43	35	30	27	24	..	
Smooth....	54	46	40	35	31	..	

HALF-ROUND FILE

Length	4	6	8	10	12	14	16	Inches
Width....	$\frac{7}{16}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{13}{16}$	$1\frac{1}{8}$	$1\frac{5}{16}$	$1\frac{1}{2}$	"
Thickness..	$\frac{1}{8}$	$\frac{5}{32}$	$\frac{7}{32}$	$\frac{9}{32}$	$\frac{11}{32}$	$\frac{13}{32}$	$\frac{15}{32}$	"
Bastard....	43	32	25	22	18	17	15	} teeth per inch
2nd Cut...	54	43	35	30	27	24	22	
Smooth....	69	54	46	40	35	31	30	

ROUND FILE

Length	4	6	7	8	10	12	14	16	Inches
Diameter...	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{17}{64}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	"
Bastard....	40	28	27	23	20	18	17	16	} teeth per inch
2nd Cut...	50	37	..	30	28	24	22	..	
Smooth....	62	48	..	41	37	33	31	..	

SQUARE FILE

Length	4	6	8	10	12	14	16	18	Inches
Diameter...	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	"
Bastard....	45	35	27	23	20	17	16	15	} teeth per inch
2nd Cut...	60	46	39	33	30	27	..	..
Smooth....	75	58	45	42	37	34	..	..
SQUARE BLUNT Bastard....			27	23	20	17	..	..

PILLAR FILE

Length	6	8	10	12	Inches
Width....	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{27}{32}$	"
Thickness..	$\frac{5}{32}$	$\frac{7}{32}$	$\frac{1}{4}$	$\frac{9}{32}$	"
Bastard....	37	30	24	22	} teeth per inch
2nd Cut...	47	39	35	..	
Smooth....	60	50	45	..	

THREE-SQUARE FILE

Length	6	8	10	12	Inches
Width, Sides	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	"
Bastard....	35	27	23	20	} teeth per inch
2nd Cut...	46	38	33	30	
Smooth....	58	46	42	38	

DELTA FILES

FLAT FILE



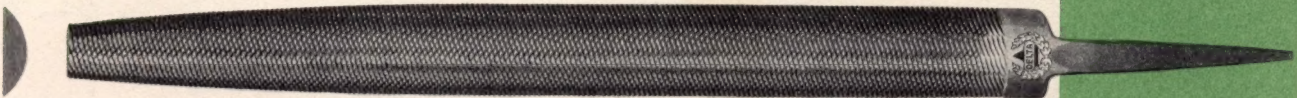
The most commonly used double-cut file. The rectangular cross section tapers toward the point, both in width and thickness. Both edges are cut.

HAND FILE



Hand files are double cut and are parallel in width but tapered in thickness. They have one cut edge, the other being left safe (uncut). Particularly useful when filing close to a shoulder.

HALF-ROUND FILE



The flat sides of all Half-Round files are double cut. The backs (convex sides) are double cut in all sizes of Bastard pattern. The Second Cut pattern is double cut 8" and up. The backs of smaller Second Cuts and all Smooth files are single cut. The edges of Bastard pattern 10" and longer are cut. The edges of all other Half-Round files are left sharp.

ROUND FILE



Furnished double cut in Bastard pattern 6" and longer, and in Second Cut pattern 12" and longer. All others furnished single cut.

SQUARE FILE



All Delta Square files are furnished double cut and are cut on all four sides.

SQUARE BLUNT

Same as above except parallel in width and thickness. Has one safe (uncut) side.

PILLAR FILE



A narrow double cut file, parallel in width but tapered in thickness. Has two safe (uncut) edges.

THREE-SQUARE FILE



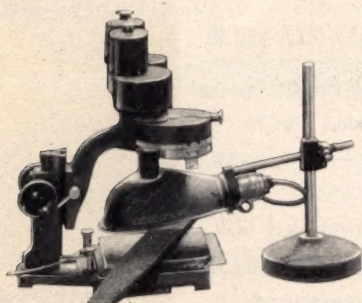
A triangular file for machine shop use, not a saw file. Double cut on all three sides. The edges are sharp, not cut.

DELTA FILES

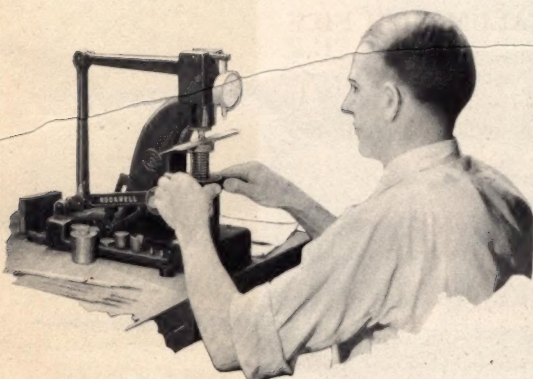


THESE *Unseen* DETAILS

One reason for Delta superiority is the depth of its "bite," due to its very sharp teeth. This feature can be readily realized after a glance at Delta filings under a microscope. A poor file makes shapeless grains of steel dust. A fairly good file makes long spirals and shavings. Delta steel filings resemble in miniature the long curling chips from a sharp planer tool. Careful control of every stage of manufacture makes possible these teeth and these "chips."



Binocular microscope, used to study file tooth formation and wear.



Rockwell hardness testing machine, used for testing file blanks and test bars.

DIMENSIONS AND APPROXIMATE NUMBER OF TEETH PER INCH

KNIFE FILE

Length	4	6	8	10	Inches
Width.....	$\frac{15}{32}$	$\frac{11}{16}$	$\frac{7}{8}$	$1\frac{1}{16}$	"
Thickness.....	$\frac{7}{64}$	$\frac{5}{32}$	$\frac{3}{16}$	$\frac{1}{4}$	"
Bastard.....	52	43	35	30	} teeth per inch
2nd Cut.....	64	55	45	36	
Smooth.....	86	69	57	46	

WARDING FILE

Length	4	6	8	10	Inches
Width.....	$\frac{1}{16}$	$\frac{5}{8}$	$\frac{25}{32}$	$\frac{15}{16}$	"
Thickness.....	$\frac{1}{16}$	$\frac{5}{64}$	$\frac{3}{32}$	$\frac{1}{8}$	"
Bastard.....	52	43	35	29	} teeth per inch
2nd Cut.....	70	57	46	38	
Smooth.....	86	70	57	45	

HAND FINISHING FILE

Length	12	14	Inches
Width.....	$1\frac{3}{16}$	$1\frac{3}{8}$	"
Thickness.....	$\frac{17}{64}$	$\frac{19}{64}$	"
Smooth.....	37	35	} teeth per inch

LONG ANGLE PARALLEL LATHE FILE

Length	10	12	14	Inches
Width.....	1	$1\frac{3}{16}$	$1\frac{3}{8}$	"
Thickness.....	$\frac{1}{4}$	$\frac{17}{64}$	$\frac{19}{64}$	"
Teeth per inch.....	24	22	19	

FLAT ALUMINUM FILE

Length	6	8	10	12	14	Inches
Width.....	$\frac{5}{8}$	$\frac{13}{16}$	1	$1\frac{3}{16}$	$1\frac{3}{8}$	"
Thickness.....	$\frac{5}{32}$	$\frac{7}{32}$	$\frac{1}{4}$	$\frac{17}{64}$	$\frac{19}{64}$	"
Teeth per inch.....	17	15	15	15	15	

HALF-ROUND ALUMINUM FILE

Length	6	8	10	12	14	Inches
Width.....	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{15}{16}$	$1\frac{1}{8}$	$1\frac{5}{16}$	"
Thickness.....	$\frac{5}{32}$	$\frac{7}{32}$	$\frac{9}{32}$	$\frac{11}{32}$	$\frac{13}{32}$	"
Teeth per inch.....	17	16	15	15	15	

BRASS FILE

Half-Round (Illustrated)					Flat			
Length	8	10	12	Inches	8	10	12	Inches
Width.....	$\frac{3}{4}$	$\frac{15}{16}$	$1\frac{1}{8}$	"	$\frac{13}{16}$	1	$1\frac{3}{16}$	"
Thickness.....	$\frac{7}{32}$	$\frac{9}{32}$	$\frac{11}{32}$	"	$\frac{7}{32}$	$\frac{1}{4}$	$\frac{17}{64}$	"
Teeth per inch...	24	23	20		24	23	20	

DELTA FILES

KNIFE FILE



So named from resemblance to a knife blade. Double cut both sides—single cut on edge. Particularly suited on work having acute angles.

WARDING FILE



Named from its original use for filing the wards or notches in keys. Useful where a thin file is desired. Double cut both sides. Both edges cut.

HAND FINISHING FILE



A double cut file having the overcut at right angles to the length of the file and the upcut on a steep angle. Used for hand surfacing, finishing, and lathe work. Has two safe (uncut) edges.

LONG ANGLE PARALLEL LATHE FILE



Long angle, single cut teeth with the edges left safe. Made on a heavy blank to minimize springing in use. This file is parallel, that is, uniform in width and thickness throughout its length, making it particularly efficient for lathe filing.

FLAT ALUMINUM FILE



A double cut file for filing aluminum, zinc, brass, and other soft metals. Both edges cut.

HALF-ROUND ALUMINUM FILE



Same as above in Half-Round shape with coarse upcut and fine overcut.

BRASS FILE



A double cut file with a long overcut and a short upcut for rapid cutting of brass and copper.



DELTA FILES

FREE CUTTING FILES

The files shown on these pages are particularly efficient when filing tenacious materials such as soft metals, fibre, plastics, wood, etc., or a combination of steel and softer metals. Because of their tendency to clog and fill up the spaces between the teeth of ordinary files, these softer and tougher materials need free cutting files with wide spaced teeth.

The files on these two pages are single cut. Velvo and Zipper files have milled teeth, while Lead Float files have chisel cut teeth. Other free cutting files with chisel cut teeth are Aluminum and Brass (double cut) files shown on page 7.

DIMENSIONS AND APPROXIMATE NUMBER OF TEETH PER INCH

FLAT LEAD FLOAT FILE

Length	8	10	12	Inches
Width.....	$\frac{13}{16}$	1	$1\frac{3}{16}$	"
Thickness.....	$\frac{7}{32}$	$\frac{1}{4}$	$\frac{17}{64}$	"
Teeth per inch.....	18	16	14	

HALF-ROUND LEAD FLOAT FILE

Length	8	10	12	Inches
Width.....	$\frac{3}{4}$	$\frac{15}{16}$	$1\frac{1}{8}$	"
Thickness.....	$\frac{7}{32}$	$\frac{9}{32}$	$\frac{11}{32}$	"
Teeth per inch.....	18	16	14	

FLEXIBLE BLADE VELVO FINISHER

Length	14	Inches
Width.....	$1\frac{11}{32}$	"
Thickness.....	$\frac{7}{32}$	"
Teeth per inch.....	9	

TANGED VELVO FINISHER

Length	14	Inches
Width.....	$1\frac{3}{8}$	"
Thickness.....	$\frac{19}{64}$	"
Teeth per inch.....	9	

DELTA Zipper FILE

A newly patented file, Pat. No. 2143063, with spaces between the teeth to allow the chips to pass clear through. Works like a plane. Will not clog or pin on the softest metal.

ZIPPER FILE

ZIPPER BLADE—Length, 14 inches. Width of cutting surface, $1\frac{3}{8}$ inches.

ZIPPER FILE HANDLE ASSEMBLY—consisting of aluminum handle and front knob, turnbuckle, two rods, two machine screws, and cotter pin.

Packed—one blade complete with handle to box—weight per box 2 lb. 7 oz. or three blades to a box—weight per box 3 lb. 5 oz.

A MODERN FILE
for MODERN INDUSTRY



DELTA FILES

FLAT LEAD FLOAT FILE



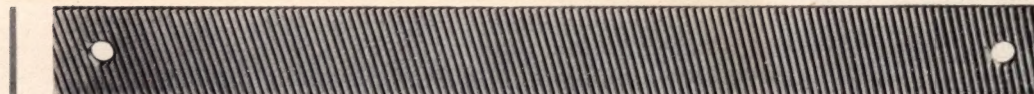
A flat shape with an open single cut known as a float cut. For use on lead and other soft metals. Also known as babbitt or solder files. Both edges cut.

HALF-ROUND LEAD FLOAT FILE



The half-round shape with the float or open single cut. Teeth clear easily, therefore efficient on softer metals. Edges are sharp (uncut).

FLEXIBLE BLADE VELVO FINISHER



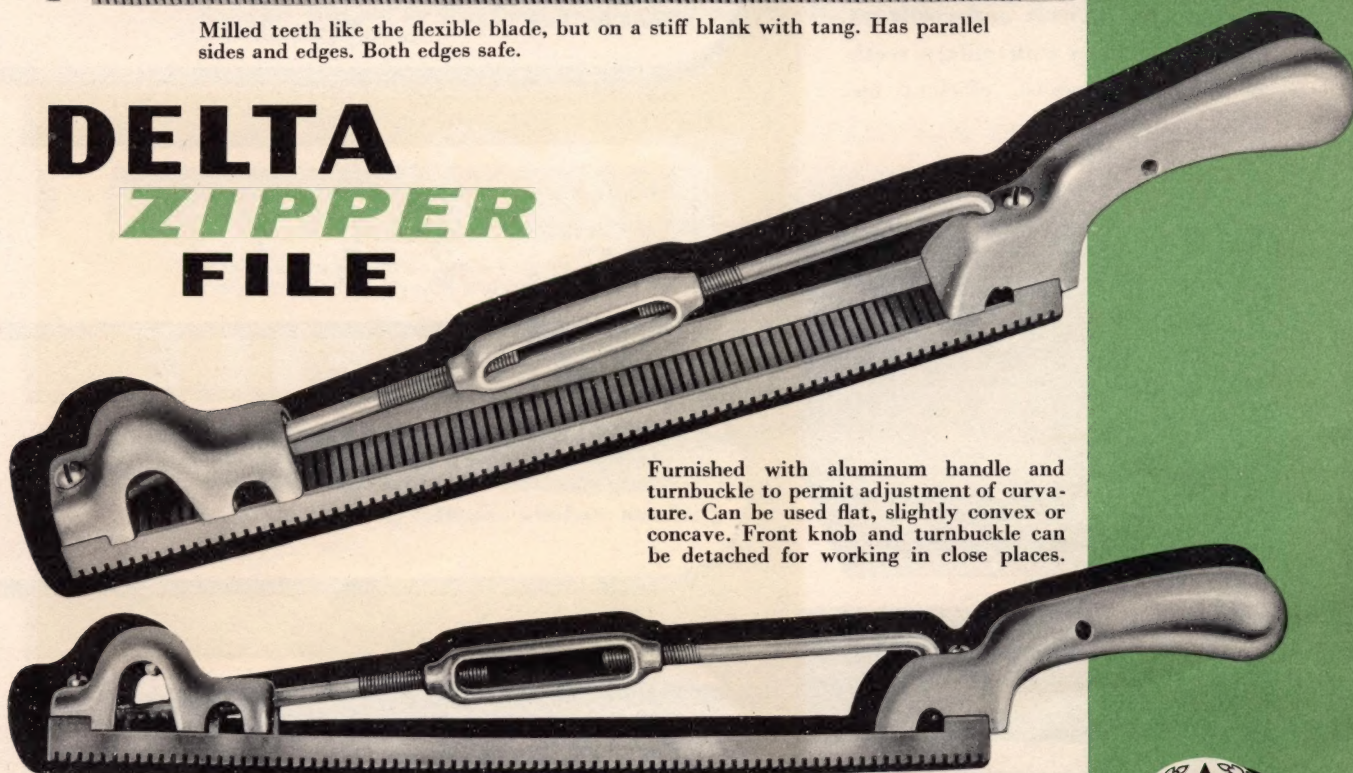
A fast cutting, smooth finishing, body file. Teeth are milled, not chisel cut, and each tooth individually sharpened. Teeth on both sides. Used with holder either flat or slightly convex. Length 14 inches.

TANGED VELVO FINISHER



Milled teeth like the flexible blade, but on a stiff blank with tang. Has parallel sides and edges. Both edges safe.

DELTA ZIPPER FILE



Furnished with aluminum handle and turnbuckle to permit adjustment of curvature. Can be used flat, slightly convex or concave. Front knob and turnbuckle can be detached for working in close places.

Clears with a flick of the wrist,—no time lost brushing or scraping clogged teeth,—no teeth rendered inefficient through loading or pinning. A precision tool for efficient filing.



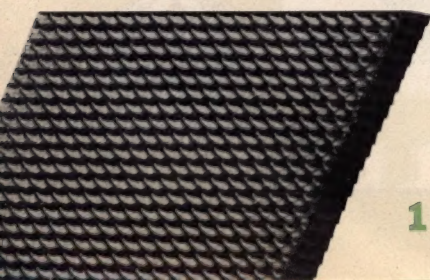
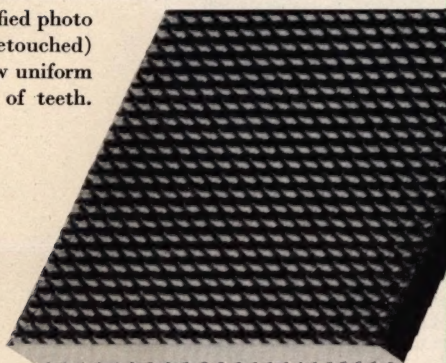
DELTA FILES

WHAT *Uniform Teeth* MEAN

The teeth of Delta Files are formed by individual blows of a chisel, which cause displacement of the metal. Each tooth thus thrown up cuts with the ultimate thousandth of an inch of its edge. Whatever alters the shape, the height, the hardness or the toughness of those microscopic edges, alters the performance of the file.

As with a razor blade, the cost of the material is not important. But the cutting quality of a file, like that of the razor blade, depends on the care and precision used in manufacture. Teeth of uniform height and contour are difficult and costly to produce, but only with uniform teeth do you get smooth, efficient file performance.

Magnified photo
(not retouched)
to show uniform
height of teeth.



DIMENSIONS AND APPROXIMATE NUMBER OF TEETH PER INCH

MILL FILE

Length	4	6	7	8	10	12	14	16	Inches
Width.....	$\frac{7}{16}$	$\frac{5}{8}$	$\frac{45}{64}$	$\frac{13}{16}$	1	$1\frac{3}{16}$	$1\frac{13}{16}$	$1\frac{17}{32}$	"
Thickness..	$\frac{5}{64}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{5}{32}$	$\frac{3}{16}$	$\frac{7}{32}$	$\frac{1}{4}$	$\frac{9}{32}$	"
Bastard....	58	50	48	44	39	35	31	27	} teeth per inch
Smooth....	..	71	..	59	53	47	41	..	

MILL FILES (Round Edges)

TWO ROUND EDGES (Illustrated)

Length	6	8	10	12	Inches
Bastard....	50	44	39		} teeth per inch
ONE ROUND EDGE					
Bastard....	50	44	39	35	teeth per inch

LANCE TOOTH CROSS CUT FILE (Mill Blunt Bastard)

Length	6	7	8	10	Inches
Width.....	$\frac{5}{8}$	$\frac{45}{64}$	$\frac{13}{16}$	1	"
Thickness..	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{5}{32}$	$\frac{3}{16}$	"
Bastard....	50	48	44	39	teeth per inch

GREAT AMERICAN CROSS CUT SAW FILE

Length	8	10	Inches
Width.....	$\frac{11}{16}$	$\frac{13}{16}$	"
Thickness..	$\frac{9}{32}$	$\frac{23}{64}$	"
Teeth per Inch	45	41	

CANT SAW FILE

Length	6	8	10	Inches
Width.....	$\frac{17}{32}$	$\frac{11}{16}$	$\frac{13}{16}$	"
Thickness..	$\frac{13}{64}$	$\frac{17}{64}$	$\frac{5}{16}$	"
Teeth per Inch	52	46	41	

REGULAR BANDSAW, BLUNT

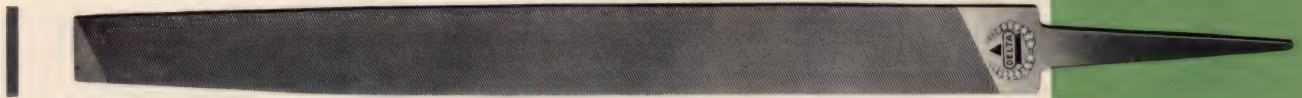
Length	6	8	Inches
Width, Sides	$\frac{1}{2}$	$\frac{5}{8}$	"
Teeth per Inch	42	39	

SLIM BANDSAW, BLUNT

Length	6	8	Inches
Width, Sides	$\frac{3}{8}$	$\frac{1}{2}$	"
Teeth per Inch	52	43	

DELTA FILES

MILL FILE



A single cut file originally made for filing mill saws. Widely used in machine shops also, due to its smooth shearing action. Made with two square edges. Both edges are cut.

MILL FILE—Two Round Edges

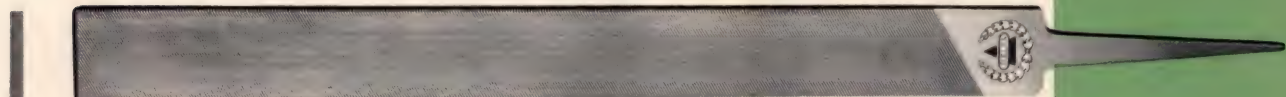


Similar to the preceding file but with two rounded cut edges. Used for filing the gullets of saw teeth.

MILL FILE—One Round Edge

Same as above except that it has one round and one square edge, both cut.

LANCE TOOTH CROSS CUT FILE



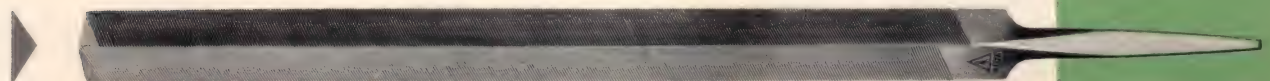
Single cut like a Mill Bastard file but parallel in both width and thickness. Both edges cut. The greater width at the point makes this file particularly efficient in filing cross cut saws. Also known as Mill Blunt Bastard.

GREAT AMERICAN CROSS CUT FILE



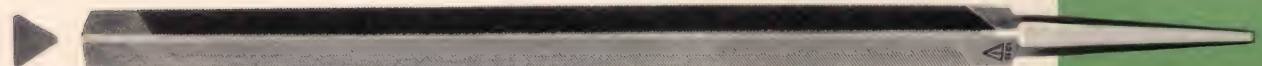
Single cut. Designed for filing Great American cross cut saws. The rounded back is cut for filing gullets.

CANT SAW FILE



Single cut on all three sides, — two edges cut. A special three-sided shape used for sharpening certain types of cross cut, circular, and buck saws.

REGULAR BANDSAW, BLUNT



Single cut. For filing bandsaws with well rounded gullets. Has heavy rounded cut edges.

SLIM BANDSAW, BLUNT




Single cut. Same as Regular Blunt Bandsaw file but smaller cross section.



DELTA FILES

DELTA

HAND SAW FILES



While we offer on these pages more than twenty sizes and types of files for filing the teeth of hand saws—namely Regular Taper File, Slim Taper, Extra Slim Taper and Double Extra Slim Taper, we recommend the following three files as the only files needed to file the full range of hand saw teeth:

CARPENTER'S SPECIAL MECHANIC'S FAVORITE EXPERT'S CHOICE

The designs of Delta Hand Saw Files are the result of cumulative experience of expert saw filers, and they fulfill all the requirements of all patterns used for filing hand saws.

Made in three sizes that take the place of thirty or more sizes of saw files formerly bought from habit. These three files are all that are required to file hand saws from 4 to 12 point, also panel saws. With their longer sweep and smaller cross section, these files enable the user to file a saw in half the time ordinarily taken.

CARPENTER'S SPECIAL

Designed for filing small saws with 10 to 12 points and sharp gullets.

MECHANIC'S FAVORITE

For filing saws with 6 to 10 points.

EXPERT'S CHOICE

The most economical pattern made. For large saws with 4 to 7 points but wide enough to use the double edge for filing small saws.

All Hand Saw Files are single cut on all three sides and three edges.



DELTA FILES

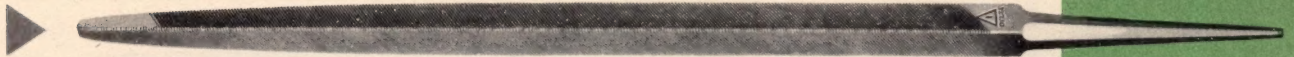
DIMENSIONS AND APPROXIMATE NUMBER OF TEETH PER INCH

REGULAR TAPER SAW FILE



Length	6	7	8	10	Inches
Width, Sides	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{3}{4}$	"
Teeth per inch	42	39	39	34	

SLIM TAPER



Length	4	4½	5	6	7	8	10	Inches
Width, Sides	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{13}{32}$	$\frac{1}{2}$	$\frac{19}{32}$	"
Teeth per inch	60	57	56	52	47	43	39	

EXTRA SLIM TAPER



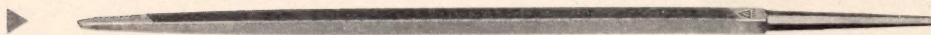
Length	4	4½	5	5½	6	7	8	Inches
Width, Sides	$\frac{3}{16}$	$\frac{7}{32}$	$\frac{7}{32}$	$\frac{1}{4}$	$\frac{9}{32}$	$\frac{11}{32}$	$\frac{13}{32}$	"
Teeth per inch	64	63	61	60	58	53	50	

DOUBLE EXTRA SLIM



Length	4	4½	5	6	7	8	Inches
Width, Sides	$\frac{5}{32}$	$\frac{11}{64}$	$\frac{3}{16}$	$\frac{7}{32}$	$\frac{1}{4}$	$\frac{5}{16}$	"
Teeth per inch	70	68	66	62	56	52	

CARPENTER'S SPECIAL



Length	5½	Inches
Width, Sides	$\frac{1}{4}$	"
Teeth per inch	62	

MECHANIC'S FAVORITE



Length	7	Inches
Width, Sides	$\frac{1}{4}$	"
Teeth per inch	56	

EXPERT'S CHOICE



Length	8	Inches
Width, Sides	$\frac{5}{16}$	"
Teeth per inch	52	

DOUBLE ENDER



Length	6	7	8	9	10	Inches
Width, Sides	$\frac{3}{16}$	$\frac{7}{32}$	$\frac{9}{32}$	$\frac{11}{32}$	$\frac{3}{4}$	"
Teeth per inch	62	60	57	54	49	

Furnished one dozen files and six handles to package

All the files on this page are single cut on all three sides and three edges.



DELTA FILES

Reduce Your FILING COST

An hour's wage is the maximum difference between the price of a box of Delta Files and a box of the cheapest brands. But that hour of extra care repays itself several times over in added service.

Before a Delta File is worn out it has added several times its own cost to the value of the man using it, by enabling him to do more work per hour.

And remember that Delta Files outlast others as they outcut them. Labor cost or file cost—you will win with Deltas.

INVEST AN HOUR and SAVE THREE



DIMENSIONS AND APPROXIMATE NUMBER OF TEETH PER INCH

CABINET RASP

Length	6	8	10	12	14	Inches
Width.....	$\frac{23}{32}$	$\frac{15}{16}$	$1\frac{1}{8}$	$1\frac{5}{16}$	$1\frac{9}{16}$	"
Thickness.....	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{9}{32}$	$\frac{11}{32}$	$\frac{13}{32}$	"
2nd Cut.....	$8\frac{3}{4}$	$8\frac{3}{4}$	$6\frac{3}{4}$	$6\frac{3}{4}$	$6\frac{3}{4}$	} teeth per inch
Smooth.....	12	12	10	10	10	

FLAT WOOD RASP

Length	8	10	12	14	16	Inches
Width.....	$\frac{13}{16}$	1	$1\frac{3}{16}$	$1\frac{3}{8}$	$1\frac{11}{32}$	"
Thickness.....	$\frac{9}{32}$	$\frac{11}{32}$	$\frac{13}{32}$	$\frac{15}{32}$	$\frac{17}{32}$	"
Bastard.....	$6\frac{3}{4}$	$5\frac{3}{4}$	$5\frac{1}{4}$	$4\frac{3}{4}$	$4\frac{1}{4}$	} teeth per inch
Smooth.....	10	$8\frac{3}{4}$	$8\frac{3}{4}$	$6\frac{3}{4}$	$5\frac{3}{4}$	

HALF-ROUND WOOD RASP

Length	6	8	10	12	14	16	Inches
Width.....	$\frac{5}{8}$	$\frac{13}{16}$	1	$1\frac{3}{16}$	$1\frac{3}{8}$	$1\frac{9}{16}$	"
Thickness.....	$\frac{15}{64}$	$\frac{5}{16}$	$\frac{13}{32}$	$\frac{15}{32}$	$\frac{17}{32}$	$\frac{37}{64}$	"
Bastard.....	10	$6\frac{3}{4}$	$5\frac{3}{4}$	$5\frac{1}{4}$	$4\frac{3}{4}$	$4\frac{1}{4}$	} teeth per inch
Smooth.....	12	10	$8\frac{3}{4}$	$8\frac{3}{4}$	$6\frac{3}{4}$	$6\frac{1}{4}$	

AUGER BIT FILE

Length.....7 Inches

DOCTOR FILE

Length	14	Inches
Width.....	$1\frac{7}{16}$	"
Thickness.....	$\frac{11}{32}$	"
Bastard.....	19	} teeth per inch
2nd Cut.....	22	
Smooth.....	35	

FILE CARD AND BRUSH

A Two-in-one Handy Cleaner

Length.....9 Inches

FILE CARD AND BRUSH

A file cleaned regularly with this brush will give 25% longer life and efficiency.

Rounded edge handle fits hand comfortably. Special hole in handle for hanging up while not in use.

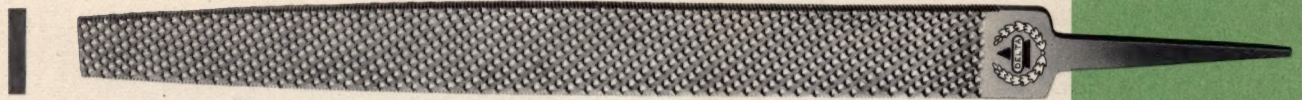
DELTA FILES

CABINET RASP



The cabinet shape is a modified half-round. Rasp cut on flat and convex sides, file cut on edges.

FLAT WOOD RASP



Same shape as flat file. Rasp cut on flat sides. File cut on edges.

HALF-ROUND WOOD RASP



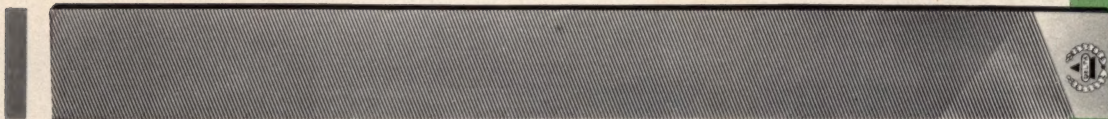
Rasp cut on flat and convex sides of the regular half-round shape. File cut on edges.

AUGER BIT FILE



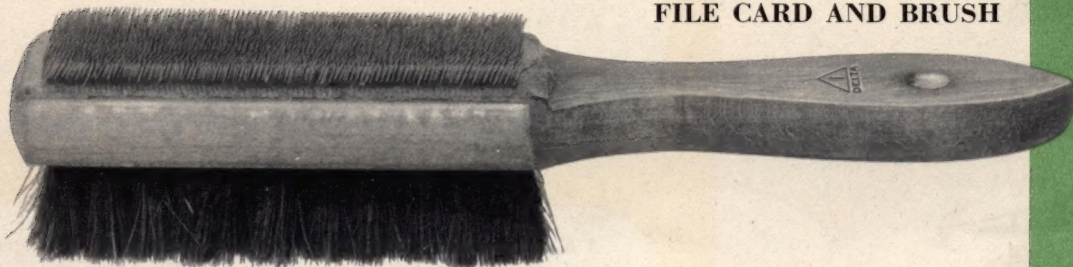
One end flat with one safe edge; one end triangular. The taper shape accommodates all sizes of bits.

DOCTOR FILE



Double cut both sides. Safe edges. For filing Doctor Blades. Usually furnished without tang.

FILE CARD AND BRUSH



This combination of file card and brush should be in the hands of every file user, mechanic, householder and automobilist. The strong and sharp wire fibres readily remove all grit while the brush cleans the file thoroughly.



DELTA FILES

**FILE
QUALITY**



ASSURANCE

DELTA FILE WORKS

4837 JAMES ST., PHILA. 37, PA.